

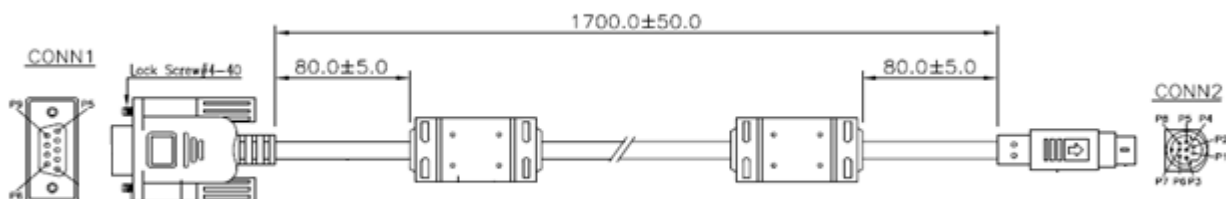
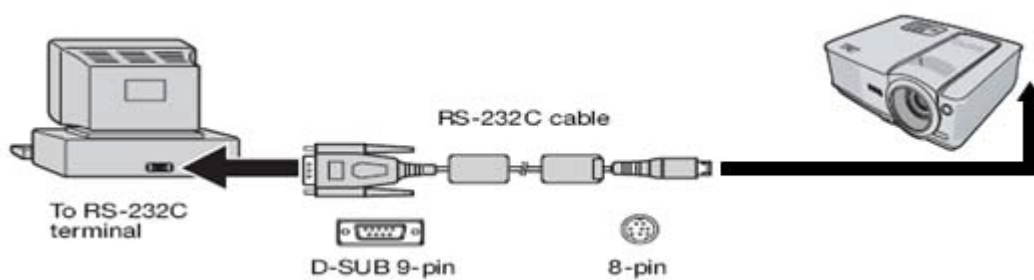
BenQ RS232 Code

BenQ

Model: SP870

1. Connection :

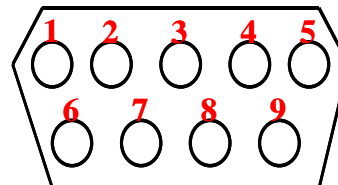
The below shows the illustration of connection between control terminal and projector.



| WIRE RUN LIST | | |
|---------------|--------|-------|
| CONN1 | COLOR | CONN2 |
| 3 | BLACK | 1 |
| 7 | BROWN | 2 |
| 4 | RED | 3 |
| 5 | ORANGE | 4 |
| 8 | YELLOW | 5 |
| 1 | GREEN | 6 |
| 2 | BLUE | 7 |
| 9 | WHITE | 8 |
| Shell | SHIELD | Shell |

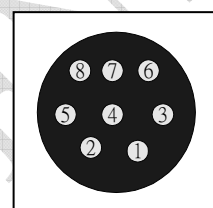
<Pin assignment: CONN1>

| Pin | Description | Pin | Description |
|-----|-------------|-----|-------------|
| 1 | NC | 2 | RXD |
| 3 | TXD | 4 | NC |
| 5 | GND | 6 | NC |
| 7 | RTS | 8 | CTS |
| 9 | NC | | |



<Pin assignment: CONN2>

| Pin | Description | Pin | Description |
|-----|-------------|-----|-------------|
| 1 | RX | 2 | CTS |
| 3 | NC | 4 | GND |
| 5 | RTS | 6 | NC |
| 7 | TX | 8 | GND |



- ◆ Make sure that your computer and projector are turned off before connection.
- ◆ Power on the computer first, and then plug the power cord of the projector.
(It may cause Com port incorrect function, if you do not follow this instruction)
- ◆ Adapters may be necessary depending on the PC connected to this projector. Please contact with your dealer for further details.

2. Interface Setting :

| | |
|--------------|------------|
| Baud Rate | 115200 bps |
| Data Length | 8 bit |
| Parity Check | None |
| Stop Bit | 1 bit |
| Flow Control | None |

3. RS232 Commands

| Function | Type | Operation | ASCII |
|------------------|-------|---------------------------|----------------------|
| Power | Write | on | <CR>*pow=on#<CR> |
| | Write | off | <CR>*pow=off#<CR> |
| | Read | Status(on/off/cool down) | <CR>*pow=?#<CR> |
| Source Selection | Write | Source scan on | <CR>*scan=on#<CR> |
| | Write | Source scan off | <CR>*scan=off#<CR> |
| | Read | Source scan status | <CR>*scan=?#<CR> |
| | Write | VGA | <CR>*sour=vga#<CR> |
| | Write | DVI | <CR>*sour=dvi#<CR> |
| | Write | HDTV | <CR>*sour=hdtv#<CR> |
| | Write | YPbPr | <CR>*sour=YPbr#<CR> |
| | Write | Composite | <CR>*sour=comp#<CR> |
| | Write | S-Video | <CR>*sour=svid# <CR> |
| | Write | YCbCr | <CR>*sour=YCbr#<CR> |
| | Read | Status | <CR>*sour=?#<CR> |
| Audio | Write | Mute on | <CR>*mute=on#<CR> |
| | Write | Mute off | <CR>*mute=off#<CR> |
| | Read | Mute status | <CR>*mute=?#<CR> |
| | Write | Volume + | <CR>*vol=+#<CR> |
| | Write | Volume - | <CR>*vol=-#<CR> |
| | Read | Volume status | <CR>*vol=?# <CR> |
| Picture Setting | Write | Contrast + | <CR>*con=+#<CR> |
| | Write | Contrast - | <CR>*con=-#<CR> |
| | Read | Contrast value | <CR>*con=?#<CR> |
| | Write | Brightness + | <CR>*bri=+#<CR> |
| | Write | Brightness - | <CR>*bri=-#<CR> |
| | Read | Brightness value | <CR>*bri=?#<CR> |
| | Write | Aspect ratio 4:3 | <CR>*asp=4:3#<CR> |
| | Write | Aspect ratio 16:9 | <CR>*asp=16:9#<CR> |
| | Read | Aspect status | <CR>*asp=?#<CR> |
| | Write | Blank on/off | <CR>*blank#<CR> |
| | Read | Blank status | <CR>*blank=?#<CR> |
| | Write | Freeze on/off | <CR>*freeze#<CR> |
| | Read | Freeze status | <CR>*freeze=?#<CR> |

| Function | Type | Operation | ASCII |
|-----------------|-------|---------------------------------|-------------------------|
| Picture Setting | Write | Auto adjust | <CR>*auto#<CR> |
| | Write | Mirror: Normal | <CR>*mir=nor#<CR> |
| | Write | Mirror: H Inverse | <CR>*mir=hinv#<CR> |
| | Write | Mirror: V Inverse | <CR>*mir=vinv#<CR> |
| | Write | Mirror: H&V Inverse | <CR>*mir=vhinv#<CR> |
| | Read | Mirror status | <CR>*mir=?#<CR> |
| | Write | Horizontal position shift right | <CR>*hpos=left#<CR> |
| | Write | Horizontal position shift left | <CR>*hpos=right#<CR> |
| | Read | Horizontal position | <CR>*hpos=?#<CR> |
| | Write | Vertical position shift up | <CR>*vpos=up#<CR> |
| | Write | Vertical position shift down | <CR>*vpos=down#<CR> |
| | Read | Vertical position | <CR>*vpos=?#<CR> |
| | Write | Color temperature low | <CR>*ctmp=T3#<CR> |
| | Write | Color temperature standard | <CR>*ctmp=T2#<CR> |
| | Write | Color temperature high | <CR>*ctmp=T1#<CR> |
| | Read | Color temperature status | <CR>*ctmp=?#<CR> |
| | Write | Keystone + | <CR>*keyst=+#<CR> |
| | Write | Keystone - | <CR>*keyst=-#<CR> |
| | Read | Keystone status | <CR>*keyst=?#<CR> |
| | Write | Preset mode: presentation(PC) | <CR>*appmod=preset#<CR> |
| | Write | preset mode: brightness | <CR>*appmod=bright#<CR> |
| | Write | preset mode: srgb | <CR>*appmod=srgb#<CR> |
| | Write | Preset mode: gaming | <CR>*appmod=game#<CR> |
| | Write | Preset mode: video | <CR>*appmod=video#<CR> |
| | Write | preset mode: movie | <CR>*appmod=mov#<CR> |
| | Write | Preset mode: cinema | <CR>*appmod=cine#<CR> |
| | Write | Preset mode: game | <CR>*appmod=game#<CR> |
| | Write | Preset mode: photo | <CR>*appmod=phot#<CR> |
| | Read | Preset mode status | <CR>*appmod=?#<CR> |
| Lamp Control | Write | Reset Lamp usage hour | <CR>*ltim=rst#<CR> |
| | Read | Lamp usage hour | <CR>*ltim=?#<CR> |
| Menu Control | Write | OSD Reset | <CR>*rst#<CR> |
| | Write | English | <CR>*lang=eng#<CR> |

| Function | Type | Operation | ASCII |
|--------------|-------|---------------|-----------------------|
| Menu Control | Write | FRE(Français) | <CR>*lang=fr#<CR> |
| | Write | Deutsch | <CR>*lang=ger#<CR> |
| | Write | Italiano | <CR>*lang=ita#<CR> |
| | Write | Español | <CR>*lang=spa#<CR> |
| | Write | РУССКИЙ | <CR>*lang=pro#<CR> |
| | Write | 繁體中文 | <CR>*lang=cht#<CR> |
| | Write | 简体中文 | <CR>*lang=chs#<CR> |
| | Write | 日本語 | <CR>*lang=jap#<CR> |
| | Write | korean(한국어) | <CR>*lang=kor#<CR> |
| | Write | swedish | <CR>*lang=swd#<CR> |
| | Write | dutch | <CR>*lang=dut#<CR> |
| | Write | turkish | <CR>*lang=turk#<CR> |
| | Write | czech | <CR>*lang=czech#<CR> |
| | Write | portugese | <CR>*lang=portug#<CR> |
| | Write | thai | <CR>*lang=thai#<CR> |
| | Write | polish | <CR>*lang=pol#<CR> |
| | Read | Language | <CR>*lang=?#<CR> |
| Error status | Read | Error status | <CR>*err#<CR> |